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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/921,593

08/06/2001

Shih-Ping Yeh

ASU 121

9680

7590

03/05/2004

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EXAMINER

SNIEZEK, ANDREW L

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 03/05/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/921,593

Applicant(s)

YEH, SHIH-PING

Examiner

Andrew L. Sniezek

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

The drawings filed 8/6/01 are acceptable to the Examiner.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Stupeck et al.

Re claim 1: Stupeck et al. teaches a circuit for a hard disk drive which is conductively jointed with an interface situated between a hard disk drive and a computer (figure 1A) and column 3, lines 28-38 which comprises a rechargeable charge reservoir (C1 and C2) which also could be replace with a single capacitor, column 6, lines 20-24; a charge controller connected between a power terminal for the drive and the charge reservoir (D1, D2), and a selectable switch (54) which is used to automatically switch power to the disk drive. This switching takes place to safely park the heads in case the drive is extracted improperly, which corresponds to the emergency power loss in which a sudden power loss to the drive occurs.

Re claim 6: figures 1A along with figure 2 teach that the protective circuit arrangement is with the drive relative to an interface (14).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stupeck et al. in view of Barmache et al..

The teaching of Stupeck et al. is discussed above and incorporated herein. Claim 2 additionally sets forth that the charge controller comprises a diode and a resistor. These features although not taught by Stupeck et al. are taught by Barmache et al. (column 5, lines 63-68) in order to properly charge the unload capacitor. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the specific diode and resistor as taught by Barmache et al. in the arrangement of Stupeck et al. to properly charge a capacitor.

Claims 3-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupeck et al. in view of Marrington et al..

The teaching of Stupeck et al. is discussed above and incorporated herein. Claims 3 and 4 set forth specific battery arrangements that are used as the rechargeable reservoir, specifically a Lithium battery (claim 3) and a Ni-Cd battery (claim 4). Although not specifically taught by Stupeck et al., it is well known as taught by Marrington et al. to provide a rechargeable battery source for a disk device in case of power loss. Also, it is well known that Lithium batteries and Ni-Cd batteries are widely accepted as rechargeable batteries. Official notice is hereby given. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace

a rechargeable capacitor arrangement as taught by Stupeck et al. with rechargeable battery arrangements as taught by Marrington et al. and to uses widely known rechargeable batteries including a Lithium battery arrangement or Ni-Cd battery arrangement as set forth since each are used in similar devices for similar purposes. The use of hard disk drives in a desktop computer (claim 7) and a laptop computer (claim 8) although not specifically discussed in Stupeck et al. is well known in the art as taught by Marrington et al. by the discussion of large and small microcomputers used at home (column 1). Here the large computer is deemed to be directed to a desktop computer and a small computer is deemed directed to a laptop computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a backup power source arrangement as taught by Stupeck et al. in a wide variety of components that used a disk drive including a desktop and laptop as claimed since the backup power supply would operate equally in each.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stupeck et al.

Claim 5 additionally sets forth the use of Schottky diodes for providing a switching arrangement. Although not taught by Stupeck et al., the use of Schottky diodes for a switching arrangement is notoriously well known. Official notice is hereby given. It would have been obvious to one of ordinary skill in the art at the time of the arrangement to replace one known switching arrangement as taught by Stupeck et al. with another known switching arrangement including the Schottky diodes as set forth by claim 5 since each are used in similar devices for similar purposes.

#### *Conclusion*

Application/Control Number:  
09/921,593  
Art Unit: 2651

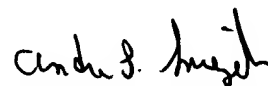
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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iizuka et al. teaches the use of a power control arrangement in a Laptop. Kawachi et al., Watanabe et al., Bennett et al. and Kanda et al. disclose various retracting arrangements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 703-308-1602. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

  
Andrew L. Sniezek  
Primary Examiner  
Art Unit 2651

A.L.S.  
February 28, 2004